

ABSTRACT OF THE DISCLOSURE

A method of manufacturing a tyre includes making a carcass structure on a first-stage drum, transferring it to a second-stage drum, applying a belt structure and tread band, and shaping the tyre. Making the carcass structure includes feeding at least one semi-finished product onto the first-stage drum, disposing at least one separating element radially external to the at least one semi-finished product, feeding at least one carcass ply onto the first-stage drum, disposing annular elements radially external to the at least one carcass ply, turning up the at least one carcass ply around at least one of the annular elements, removing the at least one separating element, and applying bead cores. The first-stage drum includes central and side portions, at least one transport device, at least one pressure device, at least one turning-up device, and a device adapted to radially modify the drum surface.